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(19) **United States**(12) **Patent Application Publication****Stauff et al.**(10) **Pub. No.: US 2020/0153383 A1**(43) **Pub. Date: May 14, 2020**(54) **SOLAR CELL ARRANGEMENT FOR AN ELECTRICALLY DRIVABLE MOTOR VEHICLE, AND MOTOR VEHICLE****B60J 11/04** (2006.01)**B60L 8/00** (2006.01)(52) **U.S. CL.****CPC** **H02S 30/20** (2014.12); **B60L 8/003**(2013.01); **B60J 11/04** (2013.01); **H02S 20/30**

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(71) Applicant: **Ford Global Technologies, LLC,**
Dearborn, MI (US)(72) Inventors: **Sebastian Stauff,** Cologne (DE); **Bruno Alves,** Huerth (DE); **Tobias Ricke,** Cologne (DE)(73) Assignee: **Ford Global Technologies, LLC,**
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(57)

ABSTRACT

The invention concerns a solar cell arrangement (2, 8) for an electrically drivable motor vehicle (1, 7), having at least one flexible structure (3, 10), at least one inflatable chamber (4) which is arranged or formed on the flexible structure (3, 10), at least one solar cell unit (6) arranged on the flexible structure (3, 10), and at least one transfer device connected to the chamber (4) for transferring the flexible structure (3, 10) from a slack stowage state into a tensioned function state. In order to provide a more effective solar cell arrangement (2, 8), at least one element of a shape-memory polymer is arranged on the flexible structure (3, 10), and/or the flexible structure (3, 10) is formed at least partially from a shape-memory polymer, and/or a wall of the chamber (4) is formed at least partially from a shape-memory polymer.

